

CLAIMS:

1. A method for maintaining information about multiple instances of an activity, comprising:

receiving process data regarding the instances from each of a plurality of application programs;

receiving continuation data regarding the instances, the continuation data correlating, for each of the instances, process data for the instance received from at least one of the application programs with process data for the same instance received from at least another of the application programs; and

inserting process data for each of the instances into instance database records based on the continuation data.

2. The method of claim 1, wherein the process data comprises at least one of:

milestone data providing a time for one or more portions of the processing of an instance, or

payload data describing an instance.

3. The method of claim 1, wherein continuation data comprises a first identifier associated with an instance by a first application and a second identifier associated with the instance by a second application.

4. The method of claim 1, further comprising:

storing continuation data in a continuation data table, wherein records of the continuation data table correlate process data regarding instances received from a first application with process data regarding instances received from a second application.

5. The method of claim 4, wherein the instances are acted upon in a sequence of processing steps, and wherein each of the applications provides process data corresponding to a different part of the processing sequence.

6. The method of claim 5, further comprising:

updating the continuation data table to contain records referring to the earliest sequential process data received for an instance.

7. The method of claim 5, further comprising:

deleting a continuation data table record pertaining to an instance upon receiving data from one of the applications indicating that no additional data for the instance will follow from the application.

8. The method of claim 1, wherein:

the instances are acted upon in a sequence of processing steps,  
each of the applications provides process data corresponding to a different part of the processing sequence, and

process data for at least a portion of the instances are received in an order different from the processing sequence, and further comprising:

preventing access to instance database records containing out-of-order data reflecting completion of a processing step for an instance but not reflecting completion of a sequentially prior processing step for the instance.

9. The method of claim 8, wherein said preventing access comprises preventing human users from viewing instance database records containing out-of-order data.

10. The method of claim 8, wherein said preventing access comprises preventing one or more analysis application programs from performing analysis upon records containing out-of-order data.

11. The method of claim 8, further comprising:

providing access to a first instance database record for an instance not containing out-of-order data; and

preventing access to a second instance database record for the instance, wherein the second instance database record contains out-of-order data, and wherein process data in the second instance database record is not correlated to process data in the first record by continuation data.

12. The method of claim 11, further comprising:

receiving correlation data indicating that the first and second records pertain to the same instance; and  
merging the first and second records.

13. The method of claim 1, wherein the process data is received in batch updates from the applications.

14. The method of claim 13, wherein:

the instances are acted upon in a sequence of processing steps,  
each of the applications provides process data corresponding to a different part of the processing sequence,  
process data for at least a portion of the instances are received in an order different from the processing sequence, and  
process data from at least one of the applications is sequentially pre-sorted prior to batch update.

15. A computer-readable medium having stored thereon data representing sequences of instructions which, when executed by a processor, cause the processor to perform steps comprising:

receiving process data regarding multiple instances of an activity from each of a plurality of application programs;

receiving continuation data regarding the instances, the continuation data correlating, for each of the instances, process data for the instance received from at least one of the application programs with process data for the same instance received from at least another of the application programs; and

inserting process data for each of the instances into instance database records based on the continuation data.

16. The computer-readable medium of claim 15, wherein the process data comprises at least one of:

milestone data providing a time for one or more portions of the processing of an instance, or

payload data describing an instance.

17. The computer-readable medium of claim 15, wherein continuation data comprises a first identifier associated with an instance by a first application and a second identifier associated with the instance by a second application.

18. The computer-readable medium of claim 15, comprising additional data representing sequences of instructions which, when executed by a processor, cause the processor to perform additional steps comprising:

storing continuation data in a continuation data table, wherein records of the continuation data table correlate process data regarding instances received from a first application with process data regarding instances received from a second application.

19. The computer-readable medium of claim 18, wherein the instances are acted upon in a sequence of processing steps, and wherein each of the applications provides process data corresponding to a different part of the processing sequence.

20. The computer-readable medium of claim 19, comprising additional data representing sequences of instructions which, when executed by a processor, cause the processor to perform additional steps comprising:

updating the continuation data table to contain records referring to the earliest sequential process data received for an instance.

21. The computer-readable medium of claim 19, comprising additional data representing sequences of instructions which, when executed by a processor, cause the processor to perform additional steps comprising:

deleting a continuation data table record pertaining to an instance upon receiving data from one of the applications indicating that no additional data for the instance will follow from the application.

22. The computer-readable medium of claim 15, wherein:

the instances are acted upon in a sequence of processing steps,  
each of the applications provides process data corresponding to a different part  
of the processing sequence, and

process data for at least a portion of the instances are received in an order  
different from the processing sequence, and comprising additional data representing  
sequences of instructions which, when executed by a processor, cause the processor to  
perform additional steps comprising:

preventing access to instance database records containing out-of-order data reflecting  
completion of a processing step for an instance but not reflecting completion of a sequentially  
prior processing step for the instance.

23. The computer-readable medium of claim 22, wherein said preventing access  
comprises preventing human users from viewing instance database records containing out-of-  
order data.

24. The computer-readable medium of claim 22, wherein said preventing access  
comprises preventing one or more analysis application programs from performing analysis  
upon records containing out-of-order data.

25. The computer-readable medium of claim 22, comprising additional data representing  
sequences of instructions which, when executed by a processor, cause the processor to  
perform additional steps comprising:

providing access to a first instance database record for an instance not containing out-of-order data; and

preventing access to a second instance database record for the instance, wherein the second instance database record contains out-of-order data, and wherein process data in the second instance database record is not correlated to process data in the first record by continuation data.

26. The computer-readable medium of claim 25, comprising additional data representing sequences of instructions which, when executed by a processor, cause the processor to perform additional steps comprising:

receiving correlation data indicating that the first and second records pertain to the same instance; and

merging the first and second records.

27. The computer-readable medium of claim 1, wherein the process data is received in batch updates from the applications.

28. The computer-readable medium of claim 27, wherein:

the instances are acted upon in a sequence of processing steps,

each of the applications provides process data corresponding to a different part of the processing sequence,

process data for at least a portion of the instances are received in an order different from the processing sequence, and

process data from at least one of the applications is sequentially pre-sorted prior to batch update.